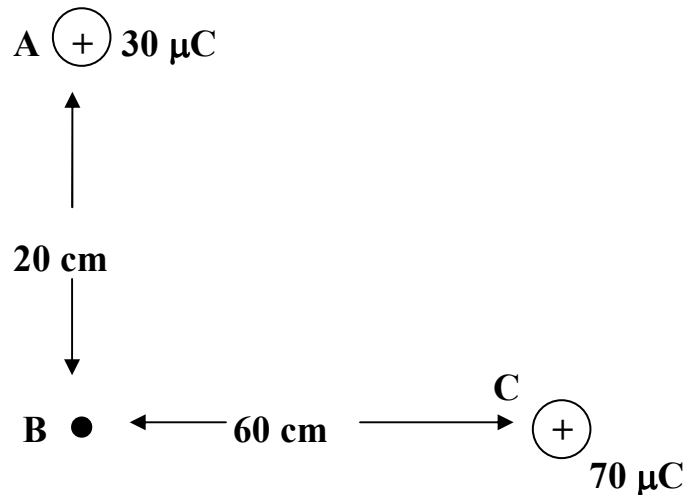


Example 12. Re-examine the diagram from Example 8 (see below). Find the electric potential at point B due to the other charges. Hint: remember, electric potential is a scalar quantity. No vector analysis is needed here.



$$V_A = \frac{(9 \times 10^9)(30 \times 10^{-6})}{.20} = 1350000\ \text{V}$$

$$V_B = \frac{9 \times 10^9 (70 \times 10^{-6})}{.60} = 1050000\ \text{V}$$

$$V_{\text{total}} = 2.4 \times 10^6\ \text{V}$$